



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 19 88 02 46

Classification of the application (IPC):
H01M 10/42, H01M 50/209, H01M 50/264, H01M 50/289

Technical fields searched (IPC):
H01M

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	DE 102017011717 A1 (DAIMLER AG [DE]) 30 May 2018 (2018-05-30) * paragraphs [0018] - [0023], [0027] - [0028], [0030], [0034]; figures 1-4 *	1-3, 8-13
X	CN 202231073 U (DYNAPACK INTERNAT TECHNOLOGY CORP) 23 May 2012 (2012-05-23) * paragraphs [0049] - [0057]; figures 1, 4, 5 *	1-3, 11-13
A	US 2017125753 A1 (KIM YOUNG-DEOK [KR] ET AL) 04 May 2017 (2017-05-04) * paragraphs [0099] - [0100]; figures 2, 5 *	1-3, 8-13

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search Munich	Date of completion of the search 04 August 2021	Examiner Monti, Adriano
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CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 2, 3, 8-10(completely); 1, 11-13(all partially)

A battery module, comprising: two or more battery groups each comprising two or more battery cells;a module frame having end plates and side plates defining an accommodating cavity for fixing the battery groups; a middle plate disposed between two of the battery groups and provided with an accommodating groove inside; and a cell management unit, disposed in the accommodating groove and connected to a sampling line of the battery cells. The battery module is further characterised in that the accommodating groove is recessed from the top to the bottom of the middle plate, and it comprises positioning structures contacting the cell management unit and forming gaps between front and rear surfaces of the cell management unit and inner walls of the accommodating groove.

2. claims: 4, 5, 14, 15(completely); 1, 11-13(all partially)

A battery module, comprising: two or more battery groups each comprising two or more battery cells;a module frame having end plates and side plates defining an accommodating cavity for fixing the battery groups; a middle plate disposed between two of the battery groups and provided with an accommodating groove inside; and a cell management unit, disposed in the accommodating groove and connected to a sampling line of the battery cells. The battery module is further characterised in that the cell management unit comprises a housing accommodating a cell management circuit board.

3. claims: 6, 7(completely); 1, 11-13(all partially)

A battery module, comprising: two or more battery groups each comprising two or more battery cells;a module frame having end plates and side plates defining an accommodating cavity for fixing the battery groups; a middle plate disposed between two of the battery groups and provided with an accommodating groove inside; and a cell management unit, disposed in the accommodating groove and connected to a sampling line of the battery cells. The battery module is further characterised in that it comprises elastic pads at the bottom of the middle plate.

None of the further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for those parts of the European patent application which relate to the first mentioned in the claims, namely claims: 2, 3, 8-10(completely); 1, 11-13(partially)

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search Munich	Date of completion of the search 04 August 2021	Examiner Monti, Adriano
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ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 04-08-2021
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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
DE 102017011717	A1	30-05-2018	NONE		
CN 202231073	U	23-05-2012	CN	202231073 U	23-05-2012
			JP	3172194 U	08-12-2011
			TW	M432151 U	21-06-2012
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			EP	3163650 A1	03-05-2017
			KR	20170050959 A	11-05-2017
			US	2017125753 A1	04-05-2017